



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

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DEC 15 2010

Ref: EPR-N

Cathy Kropp  
Public Affairs Office  
U.S. Army Environmental Command  
1835 Army Blvd. BSMT (Bldg. 200)  
Fort Sam Houston, TX 78234-2686

Re: Draft Programmatic Environmental  
Impact Statement for the Realignment,  
Growth, and Stationing of Army Aviation  
Assets

Dear Ms. Kropp:

The U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the Army's Draft Programmatic Environmental Impact Statement (PEIS) for the Realignment, Growth, and Stationing of Army Aviation Assets. We provide our comments in accordance with our review responsibility under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. 7609.

The Draft PEIS considers three alternatives and a no-action alternative. It identifies a preferred alternative, alternative 3, which is implementation of both alternatives 1 and 2. The Army's preferred alternative is to realign units to form a twelfth Combat Air Brigade (CAB) and create a new CAB. One of the two CABs will be stationed at Fort Carson and the other will be stationed at Joint Base Lewis-McChord (JBLM). The Fort Carson CAB will conduct training activities at the Pinon Canyon Maneuver Site (PCMS) and the JBLM CAB will use the Yakima Training Center (YTC). A CAB consists of approximately 120 helicopters, 600 wheeled vehicles, and 2,700 soldiers. The CAB is organized into five battalions and a headquarters unit. CAB units include combat, reconnaissance, and logistics support aircraft.

Fort Carson is approximately 137,000 acres; its cantonment area, at the northern end, approximating 6,000 acres. PCMS is approximately 235,000 acres; its cantonment area approximating 1,660 acres. JBLM is approximately 90,600 acres; 65,000 acres being

maneuver areas. The project will entail garrison construction of offices, housing, vehicle and aircraft parking and maintenance, equipment storage facilities, recreational facilities, roads, barracks, family housing, dining facilities, maintenance shops, hangars, rotary runway parking aprons, and other infrastructure at each post. No construction would occur at the PCMS but future construction may occur at YTC.

The EPA appreciates the efforts of the Army in preparing this Draft PEIS and we offer our comments and recommendations in regard to mitigation, impact characterization, and resource-specific impact analysis, including greenhouse gases. EPA recommends that the Final PEIS include a section on mitigation either within the discussion for each impacted resource or as a standalone section. The Draft PEIS does not identify or describe mitigation for impacts. Section 4.5 of the Draft PEIS indicates that the mitigation for this project is that identified in each installation's *Grow the Army* (GTA) Final EIS and the resource-specific sections reference additional documentation external to the EIS. If mitigation for this action is captured outside of this Draft PEIS, summaries of that information should still be included and the documents should be made available as appendices or on-line with links provided in the Draft PEIS. An explanation of the relationship between this PEIS and its alternatives to the GTA Final EIS should also be included in the Final EIS.

EPA recommends the Army more thoroughly explain its basis for impact determination. The Draft PEIS identifies direct, indirect, and cumulative impacts characterized as "less than significant," "mitigable to less than significant," and "significant" by resource area (Tables 1 and 2). Sections 4.2.2 and 4.2.3 describe and identify significance thresholds for each category of affected resource; however, the document does not describe how the assessment of impacts against these thresholds was made. We recommend the Army include a description of how impacts were assessed for each resource in the Final PEIS.

Consistent with Section 309 of the Clean Air Act, it is EPA's responsibility to provide an independent review and evaluation of the potential environmental impacts of this project. EPA's rating is based on the preferred action alternative. Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action, EPA is rating this Draft PEIS as Environmental Concerns – Insufficient Information, "EC-2". The EC-2 rating means EPA identified potential environmental impacts to air quality, water quality, wetlands, and cultural resources that should be avoided or reduced. EPA also concludes that the Draft PEIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment. EPA did identify opportunities for additional information disclosure and mitigation. A full description of EPA's EIS rating system is enclosed.

If you have any questions regarding our comments or this rating, please contact me at 303-312-6004, Maggie Pierce of my staff at 303-312-6550, or Teresa Kubo of Region 10 at 503-326-2859.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Larry Svoboda', with a long horizontal flourish extending to the right.

Larry Svoboda  
Director, NEPA Compliance and Review Program  
Office of Ecosystems Protection and Remediation

Enclosures



**U.S. EPA Regions 8 and 10 Comments on the  
Draft Programmatic Environmental Impact Statement  
for the Realignment, Growth, and Stationing of Army Aviation Assets**

**Mitigation**

EPA recommends that the Final PEIS include a section on mitigation either within the discussion for each impacted resource or as a standalone section. The Draft PEIS does not identify or describe mitigation for impacts. Section 4.5 of the Draft PEIS indicates that the mitigation for this project is that identified in each installation's *Grow the Army* (GTA) Final EIS and the resource-specific sections reference additional documentation external to this Draft PEIS. If mitigation for this action is captured outside of this Draft PEIS, summaries of that information should still be included and the documents should be made available as appendices or on-line with links provided in the Draft PEIS. An explanation of the relationship between this PEIS and its alternatives to the GTA Final EIS should also be included in the Final EIS.

Description of mitigation should describe what will occur and link that mitigation to the impacts associated with the Army's preferred alternative. The mitigation description should include designation of the entity responsible for implementing the mitigation, the funding source, and specific temporal milestones to meet rehabilitation standards. For those impacts which have been identified as "mitigable to less than significant," the Final PEIS should also describe how mitigation will reduce impacts to less than significant and characterize what types of impacts will not be mitigated. We also recommend a description of any monitoring and adaptive management that will be or have been developed for either the assessment of the effectiveness of mitigation measures or impacts.

The Draft PEIS mentions an erosion control management plan for PCMS described in a Clean Water Act Section 404 permit issued in 2008 (p. 5-33 and p. 5-39) and a Programmatic EA for Erosion and Sediment Control Program developed in 1998 (p. 5-33) as mitigation for impacts associated with sediment erosion and wetlands, an Integrated Resource Management Plan (INRMP) for management of impacts to wildlife, and an Environmental Noise Management Plan (ENMP) for mitigation of noise impacts. The document also describes a programmatic agreement pursuant to Section 106 of the National Historic Preservation Act to protect cultural resources. In order to meet the requirements of NEPA, we recommend the Army summarily describe how these plans and programs mitigate impacts of the project in the Final PEIS and otherwise satisfy statutory responsibilities, and that the Army include these documents as appendices or make them available on-line and provide access information.

**Impact determination and characterization**

EPA recommends the Army more thoroughly explain its basis for impact determination. The Draft PEIS identifies direct, indirect, and cumulative impacts characterized as "less than significant," "mitigable to less than significant," and "significant" by resource area (Tables 1 and 2). Sections 4.2.2 and 4.2.3 describe and identify significance thresholds for each category of

affected resource; however, the document does describe assessment of impacts for each resource. We recommend the Army include a description of how impacts were assessed for each resource in the Final PEIS, identifying thresholds and the information used or available to characterize current and predicted conditions for each resource.

Assessment of impacts typically involves a prediction of change to the current condition as a result of this project and other reasonably foreseeable future actions against qualitative or quantitative thresholds. The current condition likely represents the baseline against which impacts would be assessed; however, because other baseline conditions can be appropriate, the condition which represents the baseline against which impacts are assessed should be explicitly identified. We recommend that the Final EIS include any available data to characterize and quantify the current condition especially for those resources which are likely to be affected (Geology & Soils, Water Resources, Biological Resources, Cultural Resources, Socioeconomics, Transportation & Airspace, and Utilities, and Noise).

### **Preferred alternative**

EPA recommends a more thorough description of the preferred alternative and what activities it will entail. Table 5 which describes the Garrison Facility requirements for a CAB in terms of square footage is helpful but does not convey footprint or location. The inclusion of a map (or modification of existing maps such as Figures 3 and 4) to identify potentially affected resources and the location of construction and training activities would be beneficial.

### **Air Quality**

#### **Fort Carson**

The Draft PEIS Air Quality Section on Fort Carson (5.5.2) states that an increase in combustion activities such as those from boilers, emergency generators, equipment maintenance and motorized vehicles is expected from the proposed action. This has the potential to lead to an increase not only in CO, but also nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOCs), and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). An emissions inventory should be presented that supports the conclusion that "less than significant impacts are projected." If the emissions inventory from the proposed project contains a substantial emissions increase, an air impact analysis should be conducted.

The Air Quality Section on Fort Carson (5.5.1) notes that the *Prescribed Fire Planning Document* and the *Fort Carson Fugitive Dust Control Plan* have been established. It does not describe anticipated impacts or how the plans will mitigate those impacts. We recommend the Final PEIS describe anticipated emissions at both Fort Carson and PCMS. A description of how and what the plans will mitigate and a link to access the document should also be included.

The cantonment area of Fort Carson is located in the Colorado Springs maintenance area for carbon monoxide (CO). We note that a CO General Conformity Analysis and Determination



(Analysis) for U.S. Army Garrison was conducted in January 2009. This Analysis was performed for the GTA Final EIS. The CAB emission sources are not directly located within the CO Maintenance area; however, vehicle emissions associated with the CAB expansion that would travel into the maintenance area are included in the Analysis. The results of the Analysis confirm that the *de minimis* threshold (100 tons per year) levels for CO were not exceeded, therefore a determination was not required.

### JBLM

On page 6-16 of the Draft PEIS, the document states that employees and their transportation activities are expected to have indirect impacts on the CO and O<sub>3</sub> maintenance areas at JBLM, but that no significant degradation is anticipated. Given that 1) JBLM is located in an area that was previously designated as a nonattainment area for both ozone (O<sub>3</sub>) and CO; 2) the former Fort Lewis is operating under an air quality maintenance plan; and 3) portions of JBLM could be designated as nonattainment for ozone in the near future (DEIS page 6-13); we believe the Draft PEIS suggestion that no significant degradation is anticipated needs to be further substantiated.

We recommend that the Final PEIS include a hotspot analysis that shows the calculated 8-hour carbon monoxide concentrations in ppm for the poorest performing gates/intersections such as the Liberty and Madigan gates. Emissions analysis should be conducted for existing year, full build-out of the CAB, and 2030 conditions. Should this analysis indicate that National Ambient Air Quality standards are likely to be exceeded, the Final PEIS should include a discussion of additional mitigation measures. We further recommend that the suite of mitigation measures considered look beyond traffic flow improvements to measures such as car pool, van pool, or public transit programs.

### Greenhouse Gases

Tables 10 and 13 of the Draft PEIS contain *Direct Greenhouse Gas (GHG) Emissions from Aviation Asset Flight Operations*, estimating 51,174.7 tons of annual CO<sub>2e</sub> emissions. This emissions estimate is based upon annual operation hours and fuel usage for different aircraft types. The inclusion of quantified estimates in the form of CO<sub>2</sub>-equivalents can be a valuable means to characterize the proposed action's potential contributions of GHGs; however, this estimate is incomplete. A more complete estimate of emissions would include the total GHG emissions from aviation, vehicle traffic, energy usage, and stationary sources associated with the proposed action. EPA also notes that the Draft PEIS does not include an estimate of the project's indirect GHG emissions, including emissions from increased commuter traffic or increases in power generation over the lifetime of the project. Because this information may be of interest to the public in obtaining a complete picture of the GHG emissions associated with the proposed project, it may be helpful to provide a quantitative estimate of these "indirect" emissions. This approach of estimating total direct and indirect emissions would also be consistent with the 2010 Draft CEQ Guidance.<sup>1</sup> We recommend the Final PEIS include an estimate of the project's total

<sup>1</sup>[http://ceq.hss.doe.gov/nepa/regs/Consideration\\_of\\_Effects\\_of\\_GHG\\_Draft\\_NEPA\\_Guidance\\_FINAL\\_02182010.p](http://ceq.hss.doe.gov/nepa/regs/Consideration_of_Effects_of_GHG_Draft_NEPA_Guidance_FINAL_02182010.p)

direct and indirect GHG emissions over the lifetime of the project in CO<sub>2</sub>-equivalent terms. It may also be useful to translate these emissions into equivalencies that are easily understood from the public's standpoint with a tool such as EPA's Greenhouse Gas Equivalency Calculator.<sup>2</sup>

The Final PEIS should also discuss any potential inconsistencies between the GHG emissions associated with the preferred alternative and any relevant Regional, Tribal or State climate change plans or goals, as well as the extent to which the Army would reconcile, through mitigation or otherwise, its preferred alternative with such plans. For example, Colorado's Climate Action Plan<sup>3</sup> articulates a goal of reducing GHG emissions 20% below 2005 levels by 2020 and 80% below 2005 levels by 2050; the Governor of Washington issued an Executive Order in 2009 entitled "Washington's Leadership on Climate Change";<sup>4</sup> and, Washington is a partner and Colorado is an observer in the Western Climate Initiative.<sup>5</sup>

EPA also recommends revising the discussion of the link between the project's GHGs and climate change risks. While the Draft PEIS appropriately acknowledges that the preferred alternative GHG emissions would increase global GHG emissions and contribute to climate change, the Final PEIS should qualitatively discuss the link between GHGs and climate change and the potential impacts of climate change. As described in the CEQ 2010 Draft Guidance, the estimated level of GHG emissions can serve as a reasonable proxy for assessing potential climate change impacts and provide decision makers and the public with useful information for a reasoned choice among alternatives. Accordingly, to the extent that the preferred alternative (as compared to another alternative or no action), an alternative, or mitigation measures will result in lower GHG emissions, EPA recommends that the discussion reflect that lower GHG emissions overall would result in lower climate change risks. This discussion should also be addressed in the context of the cumulative impacts of GHG emissions. The Final PEIS should include analysis of reasonable alternatives and/or means to mitigate project-related GHG emissions.

The Draft PEIS indicates that it purchases natural gas and electricity from Colorado Springs Utilities but that 2.3% of Fort Carson's energy usage is provided by solar electricity (p. 5-65). We recommend that the Final PEIS describe whether the use of solar electricity or other on-site or off-site renewable energy sources may be utilized with regard to this proposed project and how such mitigation might affect the GHG emissions projections.

## **Noise**

The Draft PEIS indicates that the Environmental Noise Management Program (ENMP) and Fort Carson Regulation 95-1 outline the policies and procedures for mitigating noise impacts to the surrounding communities. We recommend the Final PEIS summarize these documents and include them as appendices to the Final PEIS or links to them on-line. The Draft PEIS includes

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<sup>2</sup> <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>

<sup>3</sup> <http://www.cdphs.state.co.us/ic/coloradoclimateactionplan.pdf>

<sup>4</sup> [http://www.governor.wa.gov/execorders/eo\\_09-05.pdf](http://www.governor.wa.gov/execorders/eo_09-05.pdf)

<sup>5</sup> <http://www.westernclimateinitiative.org/>



an addendum to Fort Carson's and JBLM's noise contour data for a CAB as part of Appendix B. These documents characterize risk in terms of the percentage of the population that is likely to be highly annoyed by noise from helicopter flyovers. Neither the 2008 addendum nor the 2006 original considers impacts to wildlife. Noise has the potential to impact bird nesting or migration and large mammal behavior and migration. We recommend the Final PEIS discuss potential impacts to wildlife because of noise and mitigation for those impacts. Mitigation could include avoidance of areas known to support sensitive wildlife at certain times of the year.

### Water Quality

The Final PEIS should disclose and identify all waterbodies on Colorado's and Washington's Section 303(d) lists that may be affected by the project and demonstrate that the project will not contribute to degradation of water quality in these listed waters. In our scoping comments, we indicate that project planning should evaluate which waterbodies are listed on the States' current 303(d) list that could potentially be affected by the project. Waterbodies that may be affected by the project include those immediately within the project area and downstream of it. The Draft PEIS identifies Wildhorse Creek and Teller Reservoir as Section 303(d) listed streams but no others. The northern and eastern portions of Fort Carson, including the cantonment area, are located within the Fountain Creek watershed (p. 5-31). EPA has identified the following additional streams within the project area that may be affected in Table 1 below. Constituents include *Escherichia coli* (*E. coli*), selenium (Se), and sulfate (SO<sub>4</sub>).

Table 1. 303(d)-listed stream segments within Colorado that may be affected by the project.

Waterbody ID	Segment Description	Portion	Clean Water Act Section 303(d) impairment	Colorado's Monitoring and Evaluation Parameter(s)
COARFO02a	Fountain Creek, Monument Creek to Hwy 47	all	<i>E. coli</i>	
COARFO02b	Fountain Creek from Hwy 47 to the Arkansas River	all	Se, <i>E. coli</i> (May-October)	
COARFO04	All tribs to Fountain Creek, which are not on National Forest or Air Force Academy Land	all	<i>E. coli</i>	
COARLA01a	Arkansas River, Fountain Creek to Colorado Canal headgate	all	Se, SO <sub>4</sub>	
COARLA01b	Arkansas River, Colorado Canal headgate to John Martin Reservoir	all	Se	
COARLA07	Purgatoire River, I-25 to Arkansas River	all	Se	Sediment
COARLA09b	Apache Creek, Breckenridge Creek, Little Horse Creek, Bob Creek, <b>Wildhorse Creek</b> , Wolf Creek, Big Sandy Creek	all	Se	
COARMA04a	<b>Wildhorse Creek</b>	all	<i>E. coli</i>	NO <sub>2</sub>



The Draft PEIS identifies Wildhorse Creek as located at the southern border of the installation and impaired for selenium and *E. coli* and having warranted a monitoring and evaluation listing for nitrate. As noted in Table 1 above, there are two separate segments including Wildhorse Creek in the Arkansas River Basin identified on Colorado's *Regulation 93: Section 303(d) List of Impaired Waters and Monitoring and Evaluation List*.<sup>6</sup> The segment impaired for selenium is Lower Arkansas 9b (COARLA09b). The segment with a monitoring and evaluation listing for nitrate and the impairment for *E. coli* is Middle Arkansas 4a (COARMA04a). EPA recommends the Army clarify if these are the same streams and which segment(s) may be affected by the project.

If a total maximum daily load (TMDL) has not been established for those waterbodies on the 303(d) list then, in the interim until one is established, the project should demonstrate that there will be no net degradation of water quality to these listed waters. Sources for contributions of *E. coli* that may be affected by the growth associated with this project include wastewater treatment plants, failing septic tanks, or contaminated storm sewers. Soil disturbance and increased irrigation attributable to construction, training, and growth have potential to contribute to impairments for selenium, sulfate, or sediment. Section 5.7.1 indicates that soil erosion, and consequently selenium and mercury, is a significant problem for both Fort Carson and PCMS.

In our scoping comments, we noted that the section of the Purgatoire River from I-25 to its confluence with the Arkansas River is identified on the 303(d) list of impaired waters for selenium.<sup>6</sup> This same segment is also identified on Colorado's Monitoring and Evaluation List for sediment. Selenium is naturally occurring within sediments of this region of Colorado. Activities which disturb the soil in the PCMS have the potential to contribute both selenium and sediment to the Purgatoire River. We continue to recommend that the Draft PEIS specifically address potential impacts to the Purgatoire River, as well as mitigation for those impacts.

The Draft PEIS indicates that there are an erosion control management plan for PCMS described in a Clean Water Act Section 404 permit issued in 2008 and a Programmatic EA for Erosion and Sediment Control Program developed in 1998 (p. 5-33). In order to meet the requirements of NEPA, we recommend the Army summarily describe how this plan and program mitigate impacts of the project and provide these documents as appendices or make them available on-line and provide access information.

### **Vegetation and Wildlife**

EPA recommends the Army disclose what species present at Fort Carson are protected under the Endangered Species Act (ESA) and describe its management for the protection of these species, summarily describing the Integrated Resource Management Plan (INRMP) and making it available as an appendix or on-line. We also recommend that the Army consult the U.S. Fish and Wildlife Service and the Colorado Division of Wildlife on the management and protection of

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<sup>6</sup> <http://www.cdphe.state.co.us/regulations/wqccregs/100293wqlimitedsegtmdlsnew.pdf>. Accessed 23 November 2010.

these species and, if necessary, update its management and mitigation strategies accordingly. The Draft PEIS indicates that Fort Carson's INRMP discusses management of the greenback cutthroat trout (*Oncorhynchus clarki stomias*), Mexican spotted owl (*Strix occidentalis lucida*), and Preble's meadow jumping mouse (*Zapus hudsonius preblei*) but does not identify specifically which species are present at Fort Carson.

The Draft PEIS does identify ESA species present at PCMS. It also states "the lower reaches of the Purgatoire River watershed, in which PCMS occurs, is one of the few places on the Great Plains that still supports a relatively intact large mammal community" but does not describe how those animals will be protected from activities. We recommend that the Final PEIS address how it will protect the large mammal community at PCMS from impacts of this action and describe any studies of wildlife and possible impacts to them from activities at either Fort Carson or PCMS. These studies need to be referenced in the FEIS and an explanation on how these studies will be used to monitor wildlife impacts as increased trainings occur on the down range facilities.

The Draft PEIS notes that some invasive species of vegetation are present at PCMS, specifically identifying one, African rue (*Peganum harmala*), and noting eradication activities for it have taken place under a plan with the Colorado Department of Agriculture. Because training could result in the increased presence of noxious weeds, EPA recommends the Draft PEIS describe its management plan for these plants in the Final PEIS.

### **Wetlands**

Wetlands comprise approximately 1,028 acres at Fort Carson and 361 acres at PCMS. The Draft PEIS indicates that "minimal individual and cumulative impacts to wetlands occur as a result of Fort Carson soil erosion control activities" (p. 5-39) and that the impacts are accounted for in the Clean Water Action Section 404 permit number SPA-2008-0058-SCO. The Draft PEIS also states "Wetlands will not be impacted as there are no wetlands in or near the proposed BAAF construction and/or renovation site" (p. 5-41). The second statement is contradictory to the first and we recommend clarification in the Final PEIS. The Draft PEIS is not explicit about whether impacts to wetlands at PCMS are anticipated; however, it seems that training activities which may affect soil erosion at PCMS also have the potential to affect wetlands. Table 2 describes impacts to Biological Resources, including wetlands, as mitigable to less than significant.

We would like to see a section explaining the direct, cumulative, or indirect impacts to wetlands and what mitigation efforts will be implemented to offset these impacts. This should include impacts to wetland and stream buffers. As described in the mitigation and water quality sections above, we recommend that the Army summarize how impacts to wetlands will be mitigated by the above referenced permit conditions, describe the determination that those impacts will be mitigated to less than significant in terms of wetland quantity and quality and thresholds, and either provide the documentation describing mitigation as an appendix or provide it on-line and include information on how to access the document in the Final PEIS. In addition, if The Army is monitoring the status and trends of wetlands on the base, a summary of the current finding should be included.



## **Cultural Resources and Tribes**

### **Fort Carson/PCMS**

The Draft PEIS discloses that a number of sacred sites, historic and prehistoric rock art sites, and other cultural properties, eligible for inclusion on the National Register of Historic Places (National Register), have been identified at Fort Carson and PCMS. Documents developed for cultural resources management include a comprehensive agreement between Fort Carson and 11 tribes concerning privacy, inadvertent discovery of human remains and cultural items, and tribal access; a memorandum of agreement among Fort Carson, the Colorado State Historic Preservation Office, and the Advisory Council on Historic Preservation; the *Integrated Cultural Resources Management Plan* (ICRMP); and the GTA Final EIS.

The Draft PEIS indicates that consultation under Section 106 of the National Historic Preservation Act (NHPA) has been initiated. The Draft PEIS notes that a draft of the programmatic agreement (PA) for compliance with Section 106 will be completed in late 2010 and that an update of the ICRMP will be part of the Section 106 PA.

EPA recommends the Final PEIS describe whether the aforementioned PA is complete and include of a summary of how cultural resources will be managed and how impacts to cultural resources will be mitigated or avoided at Fort Carson and PCMS. We also recommend that the Final EIS include documents that are the basis for mitigation as appendices or make them available on-line and provide links. We also recommend a discussion of updates to the ICRMP or other documents.

### **JBLM/YTC**

We note that while the document references tribal consultation consistent with section 106 of the National Historic Preservation Act, it does not discuss government-to-government consultation with affected tribes consistent with Executive Order 13175 (*Consultation and Coordination with Indian Tribal Governments*). Given the noted impact to tribes, and the proximity of tribal resources, it is reasonable to expect a robust discussion of consultation efforts and outcomes in the Draft PEIS. Page 6-46 of the PEIS discusses cultural resources, but it is not clear from this discussion whether formal consultation was pursued. We recommend that the Final PEIS include a discussion of tribal consultation efforts and outcomes, and how tribal concerns will be addressed in accordance with federal tribal trust responsibilities.

## **Water Quantity & Utilities**

### **Fort Carson/PCMS**

EPA continues to recommend that the Final PEIS provide additional information regarding the increased demand for water as a result of the proposed action. The Draft PEIS concludes that no

changes to water or wastewater infrastructure are necessary; however, it does not substantiate this conclusion with a comparison of the need for increased capacity because of this project or others to the current capacity or planned expansions.

#### JBLM/YTC

Page 6-65 of the DEIS states that it is expected that discharges from the Solo Point Waste Water Treatment Facility will violate permit treatment requirements more frequently in the future, and that increased demand together with more stringent permitting requirements will render the Solo Point WWTP insufficiently protective of Puget Sound water quality. EPA concurs with this assessment.

When the current draft permit is issued for the Solo Point facility, it will require compliance with more stringent permit conditions. For this reason and because the WWTP is already near its treatment capacity, we are concerned that the increased population associated with the preferred alternative would make the WWTP unable to meet more restrictive permit limits.

The construction of a new wastewater treatment plant is a key mitigation measure. We recognize that Army Installation Management Command has not approved funding for the Solo Point WWTP and that discussion is ongoing. Regardless of its funding status, we strongly recommend that construction of a new WWTP be brought forward in the FPEIS and ROD as a precondition of CAB installation.

#### **Environmental Justice**

##### Fort Carson/PCMS

We encourage the Army to analyze and explicitly address whether a minority or economically disadvantaged community will be disproportionately affected by this project. The socioeconomics section describes approximately 20% of El Paso County, 18% of Pueblo County, and 11% of Fremont County populations as minorities and notes that Fort Carson's residential population leads to a higher percentage of minorities within the vicinity of the post. Poverty levels in Pueblo and Fremont Counties are at or exceed 20% and there are small geographical areas within each county where more than 20% of the population lives below the poverty level.

##### JBLM/YTC

Page 198 of the PEIS states that increased training at JBLM will result in significant noise effects and that those impacts will be disproportionately realized by residents of the Nisqually Reservation (most of whom identify themselves as American Indian or Native Alaskan). The document goes on to say that although the effects of noise will disproportionately affect the Reservation, the overall environmental justice effects will be less than significant because the noise impact is not anticipated to change or otherwise affect any social, economic, physical, or health conditions that will result in social, cultural, or human health effects to the majority



American Indian/Alaska Native population.

We appreciate the disclosure of impacts to the Nisqually Reservation. This is an important step in an effective environmental justice analysis. It is not clear; however, how the determination that impacts would be “less than significant” was reached. Consistent with CEQ guidance we recommend that the Final PEIS provide additional information regarding physical environmental effects of the proposed action on the tribes. Information should also be included regarding outreach and community involvement efforts; the results of those efforts; and how the feedback received has been incorporated into the document.

## **U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements**

### **Definitions and Follow-Up Action\***

#### **Environmental Impact of the Action**

**LO - - Lack of Objections:** The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

**EC - - Environmental Concerns:** The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

**EO - - Environmental Objections:** The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

**EU - - Environmentally Unsatisfactory:** The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

#### **Adequacy of the Impact Statement**

**Category 1 - - Adequate:** EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

**Category 2 - - Insufficient Information:** The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new, reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

**Category 3 - - Inadequate:** EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

\* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.